

STATEMENT OF BASIS (AI No. 117691)

for draft Louisiana Pollutant Discharge Elimination System permit No. LA0122475 to discharge to waters of the State of Louisiana.

THE APPLICANT IS: Air Liquide Large Industries U.S. LP
Taft Air Separation Plant
177 Highway 3142
Hahnville, LA 70057

ISSUING OFFICE: Louisiana Department of Environmental Quality (LDEQ)
Office of Environmental Services
Post Office Box 4313
Baton Rouge, Louisiana 70821-4313

PREPARED BY: Jenniffer Sheppard
Water Permits Division
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DATE PREPARED: November 29, 2006

1. PERMIT STATUS

A. Reason For Permit Action:

First time issuance of an Louisiana Pollutant Discharge Elimination System (LPDES) permit for a 5-year term following regulations promulgated at LAC 33:IX.2711/40 CFR 122.46*.

* In order to ease the transition from NPDES to LPDES permits, dual regulatory references are provided where applicable. The LAC references are the legal references while the 40 CFR references are presented for informational purposes only. In most cases, LAC language is based on and is identical to the 40 CFR language. 40 CFR Parts 401 and 405-471 have been adopted by reference at LAC 33:IX.4903 and will not have dual references. In addition, state standards (LAC 33:IX. Chapter 11) will not have dual references.

LAC 33:IX Citations: Unless otherwise stated, citations to LAC 33:IX refer to promulgated regulations listed at Louisiana Administrative Code, Title 33, Part IX.

40 CFR Citations: Unless otherwise stated, citations to 40 CFR refer to promulgated regulations listed at Title 40, Code of Federal Regulations in accordance with the dates specified at LAC 33:IX.4901, 4903, and 2301.F.

B. NPDES permit - NPDES permit effective date: N/A
NPDES permit expiration date: N/A

EPA has not retained enforcement authority.

C. LWDPS permit - LWDPS permit effective date: N/A
LWDPS permit expiration date: N/A

D. Date Application Received - September 5, 2006. Additional information received via e-mail on October 4, 2006.

2. FACILITY INFORMATION

A. FACILITY TYPE/ACTIVITY - air separation plant

According to the application, Air Liquide Large Industries U.S. LP, Taft Facility, is an air separation plant that manufactures oxygen, nitrogen, and argon.

The air separation process includes compression and liquefaction of an incoming air stream and distilling the liquefied air stream into its principal components of nitrogen, oxygen, and argon.

The Air Separation Unit was formerly owned and operated by Union Carbide Corporation. The discharges from Outfall 501 are currently sampled under Union Carbide's LPDES permit, LA0000191.

All sanitary wastewater from Air Liquide's Taft Facility is sent to Union Carbide for treatment and discharged in accordance with LPDES permit, LA0000191.

B. FEE RATE

1. Fee Rating Facility Type: minor
2. Complexity Type: II
3. Wastewater Type: III
4. SIC code: 2813

C. LOCATION - 177 Highway 3142 in Hahnville, St. Charles Parish Latitude 29°59'22.8", Longitude 90°27'10"

D. Technology Basis - (40 CFR Chapter 1, Subchapter n/Parts 401-402, and 404-471 have been adopted by reference at LAC 33:IX.4903.)

Guideline
Inorganic Chemicals
Manufacturing Point Source Category
(Subpart AW - Oxygen & Nitrogen Production)

Reference
40 CFR 415

The provisions of this Subpart are applicable to discharges resulting from the production of oxygen and nitrogen by air liquidification. Currently, the amount of oxygen produced is 1,287 tons per day (2.574 million pounds per day) and the amount of nitrogen produced is 1,495 tons per day (2.99 million pounds per day).

Other sources of technology based limits:

LDEQ Stormwater Guidance, letter dated 6/17/87, from J. Dale Givens (LDEQ) to Myron Knudson (EPA Region 6).

LPDES Multi-Sector General Permit for Storm Water Discharges Associated with Industrial Activities, LAR050000

LPDES Light Commercial General Permit, LAG480000

Best Professional Judgement

3. **OUTFALL INFORMATION**

Outfall 001

Discharge Type: the discharge of low contamination potential stormwater runoff from the south side of the facility.

Treatment: None

Location: at the point of discharge from the south side of the facility near the oil/water separator, prior to discharging into the LA Highway 3142 roadside ditch, thence to the Mississippi River at Latitude 29°59'20", Longitude 90°27'9".

Flow: Intermittent

Discharge Route: the LA Highway 3142 roadside ditch via local drainage, thence to the Mississippi River

Outfall 002

Discharge Type: the discharge of backwash water from the compressors and low contamination potential stormwater runoff from the north side of the facility, the cooling towers, chiller building, and compressors.

Treatment: None

Location: at the point of discharge from the north side of the facility, prior to discharging into the LA Highway 3142 roadside ditch, thence to the Mississippi River at Latitude 29°59'24", Longitude 90°27'6".

Flow: Intermittent

Discharge Route: the LA Highway 3142 roadside ditch via local drainage, thence to the Mississippi River

Outfall 501

Discharge Type: the discharge of process wastewater and process area stormwater, cooling tower blowdown, condensate, equipment washwater, and non-process area stormwater runoff.

Treatment: oily water separator

Location: at the point of discharge from the oily water separator prior to combining with the waters of the Mississippi River, at Latitude 29°59'20", Longitude 90°27'8".

Flow: 0.02002 MGD

Discharge Route: Mississippi River via effluent pipe

4. RECEIVING WATERS

STREAM - Mississippi River via local drainage

BASIN AND SEGMENT - Mississippi River Basin, Segment 070301

DESIGNATED USES - a. primary contact recreation
 b. secondary contact recreation
 c. propagation of fish and wildlife
 d. drinking water supply

5. PROPOSED EFFLUENT LIMITS

The following section sets forth the principal facts and the significant factual, legal, methodological, and policy questions considered in preparing the draft permit. Also set forth are any calculations or other explanations of the derivation of specific effluent limitations and conditions, including a citation to the applicable effluent limitation guideline or performance standard provisions as required under LAC 33:IX.2707/40 CFR Part 122.44 and reasons why they are applicable or an explanation of how the alternate effluent limitations were developed.

A. TECHNOLOGY-BASED EFFLUENT LIMITATIONS AND CONDITIONS

Regulations promulgated at LAC 33:IX.2707.A/40 CFR Part 122.44(a) require technology-based effluent limitations to be placed in LPDES permits based on effluent limitations guidelines where applicable, on BPJ (best professional judgement) in the absence of guidelines, or on a combination of the two.

The following section explains the rationale for the permit limitations and monitoring frequencies stated in the draft permit.

Outfall 001 - the discharge of low contamination potential stormwater runoff from the south side of the facility.

Parameter	Monthly Average	Daily Maximum	Frequency	Sample Type	Regulatory Basis
Flow (MGD)	Report	Report	1/quarter	Estimate	LAC 33:IX.2707.I.1.b; BPJ; similarly permitted discharges
TOC	---	50 mg/L	1/quarter	Grab	BPJ; MSGP; similarly permitted discharges
Oil & Grease	---	15 mg/L	1/quarter	Grab	BPJ; MSGP; similarly permitted discharges
pH	---	6.0-9.0 s.u.	1/quarter	Grab	LAC 33:IX.1113.C.1; BPJ; MSGP; similarly permitted discharges

BPJ - Best Professional Judgment

MSGP- Multi-Sector General Permit, LAR050000

Treatment: None

Flow

The reporting monthly average and daily maximum flow is based on LAC 33:IX.2707.I.1.b. The measurement frequency of once per quarter and the sample type of estimate is based on the BPJ and current guidance for similarly permitted facilities.

Total Organic Carbon (TOC)

A daily maximum permit limitation for total organic carbon at 50 mg/L is based on the LDEQ Stormwater Guidance letter dated 6/17/87, from J. Dale Givens (LDEQ) to Myron Knudson (EPA Region 6) and the LPDES Multi-Sector General Permit for Storm Water Discharges Associated with Industrial Activities, LAR050000, effective on May 1, 2006. The measurement frequency of once per quarter and the sample type of grab is based on BPJ and current guidance for similarly permitted facilities.

Oil and Grease

A daily maximum permit limitation for oil and grease at 15 mg/L is based on the LDEQ Stormwater Guidance letter dated 6/17/87, from J. Dale Givens (LDEQ) to Myron Knudson (EPA Region 6) and the LPDES Multi-Sector General Permit for Storm Water Discharges Associated with Industrial Activities, LAR050000, effective on May 1, 2006. The measurement frequency of once per quarter and the sample type of grab is based on BPJ and current guidance for similarly permitted facilities.

pH

A minimum limit for pH at 6.0 standard units and a maximum limit for pH at 9.0 standard units is established to ensure that the discharge does not cause an instream exceedance of the numeric criteria for pH as established by LAC 33:IX.1113.C.1. The pH limitation is also established based on the LDEQ Stormwater Guidance letter dated 6/17/87, from J. Dale Givens (LDEQ) to Myron Knudson (EPA Region 6) and the LPDES Multi-Sector General Permit for Storm Water Discharges Associated with Industrial Activities, LAR050000, effective on May 1, 2006. The measurement frequency of once per quarter and the sample type of grab is based on BPJ current guidance for similarly permitted facilities.

Site-Specific Consideration(s)

None

Outfall 002 - the discharge of low contamination potential stormwater runoff from the north side of the facility and backwash water from the compressors.

Parameter	Monthly Average	Daily Maximum	Frequency	Sample Type	Regulatory Basis
Flow (MGD)	Report	Report	1/quarter	Estimate	LAC 33:IX.2707.I.1.b; BPJ; similarly permitted discharges
TOC	---	50 mg/L	1/quarter	Grab	BPJ; MSGP; similarly permitted discharges
Oil & Grease	---	15 mg/L	1/quarter	Grab	BPJ; MSGP; similarly permitted discharges
pH	---	6.0-9.0 s.u.	1/quarter	Grab	LAC 33:IX.1113.C.1; BPJ; MSGP; similarly permitted discharges

BPJ - Best Professional Judgment

MSGP- Multi-Sector General Permit, LAR050000

Treatment: None

Flow

The reporting monthly average and daily maximum flow is based on LAC 33:IX.2707.I.1.b. The measurement frequency of once per quarter and the sample type of estimate is based on BPJ and current guidance for similarly permitted facilities.

Total Organic Carbon (TOC)

A daily maximum permit limitation for total organic carbon at 50 mg/L is based on the LDEQ Stormwater Guidance letter dated 6/17/87, from J. Dale Givens (LDEQ) to Myron Knudson (EPA Region 6) and the LPDES Multi-Sector General Permit for Storm Water Discharges Associated with Industrial Activities, LAR050000, effective on May 1, 2006. The measurement frequency of once per quarter and the sample type of grab is based on BPJ and current guidance for similarly permitted facilities.

Oil and Grease

A daily maximum permit limitation for oil and grease at 15 mg/L is based on the LDEQ Stormwater Guidance letter dated 6/17/87, from J. Dale Givens (LDEQ) to Myron Knudson (EPA Region 6) and the LPDES Multi-Sector General Permit for Storm Water Discharges Associated with Industrial Activities, LAR050000, effective on May 1, 2006. The measurement frequency of once per quarter and the sample type of grab is based on BPJ and current guidance for similarly permitted facilities.

pH

A minimum limit for pH at 6.0 standard units and a maximum limit for pH at 9.0 standard units is established to ensure that the discharge does not cause an instream exceedance of the numeric criteria for pH as established by LAC 33:IX.1113.C.1. The pH limitation is also established based on the LDEQ Stormwater Guidance letter dated 6/17/87, from J. Dale Givens (LDEQ) to Myron Knudson (EPA Region 6) and the LPDES Multi-Sector General Permit for Storm Water Discharges Associated with Industrial Activities, LAR050000, effective on May 1, 2006.

The measurement frequency of once per quarter and the sample type of grab is based on BPJ and current guidance for similarly permitted facilities.

Site-Specific Consideration(s)

None

Outfall 501 - the discharge of process wastewater and process area stormwater, cooling tower blowdown, condensate, equipment washwater, and non-process area stormwater runoff.

Regulations promulgated at LAC 33:IX.2707.A/40 CFR Part 122.44(a) require technology-based effluent limitations to be placed in LPDES permits based on effluent limitations guidelines where applicable, on BPJ (best professional judgement) in the absence of guidelines, or on a combination of the two. Air Liquide Large Industries U.S. LP, Taft Facility is subject to Best Professional Judgment, Best Practicable Control Technology Currently Available (BPT) and Best Available Technology Economically Achievable (BAT) effluent limitation guidelines below:

Guideline
Inorganic Chemicals
Manufacturing Point Source Category
(Subpart AW - Oxygen and Nitrogen Production)

Reference
40 CFR 415

The provisions of this Subpart are applicable to discharges resulting from the production of oxygen and nitrogen by air liquidification. Currently, the amount of oxygen produced is 1,287 tons per day (2.574 million pounds per day) and the amount of nitrogen produced is 1,495 tons per day (2.99 million pounds per day).

Regulations require permits to establish monitoring requirements to yield data representative of the monitored activity [LAC 33:IX.2715/40 CFR 122.48 (b)] and to assure compliance with permit limitations [LAC 33:IX.2707.I./40 CFR 122.44(I)].

Parameter	Monthly Average	Daily Maximum	Frequency	Sample Type	Regulatory Basis
Flow (MGD)	Report	Report	1/month	Measure	LAC 33:IX.2707.I.1.b; BPJ; similarly permitted discharge (*)
TOC	---	50 mg/L	1/month	Grab	BPJ; similarly permitted discharge (*); LCGP
Oil & Grease	5.564 lbs/day	11.128 lbs/day	1/month	Grab	BPJ; 40 CFR 415.492
Oil & Grease	---	15 mg/L	1/month	Grab	BPJ; similarly permitted discharge (*); LCGP
Additives(**)	Report	Report	1/month	Inventory	BPJ; similarly permitted discharge (*)
pH	---	6.0-9.0 s.u.	1/month	Grab	LAC 33:IX.1113.C.1; 40 CFR 415.492

BPJ- Best Professional Judgment
LCGP - Light Commercial General Permit, LAG480000

- (*) Similarly Permitted Discharge - This discharge is similar to the discharges from Air Liquide's Plaquemine Facility, LA0050695.
- (**) A list of the type and quantity of additives used in the cooling towers shall be submitted as an attachment to the Discharge Monitoring Report Quarterly. Material Safety Data Sheets for each additive used shall be submitted once to this Office at the time of initial use of the additive.

Treatment: oily water separator.

Flow

The reporting monthly average and daily maximum flow is based on LAC 33:IX.2707.I.1.b. The measurement frequency of once per month, when discharging, and the sample type of estimate is established based on BPJ and similarly permitted facilities.

Total Organic Carbon (TOC)

A daily maximum permit limitation for total organic carbon at 50 mg/L is established based on Schedules C and I of the Light Commercial General Permit. This general permit includes the authorization to discharge stormwater, equipment washwater, cooling tower blowdown, and condensate wastewater. The technology used to establish limitations in that general permit can be employed to establish technology limitations in this draft LPDES permit. Therefore, the transfer of limitations established in the LAG480000 is appropriate. The daily maximum permit limitation for TOC at 50 mg/L is also established in LAG480000 for the discharge of stormwater and equipment washwater. The measurement frequency of once per month, when discharging, and the sample type of grab is established based on BPJ and similarly permitted facilities.

Oil and Grease

A daily maximum permit limitation in concentration for oil and grease at 15 mg/L is established based on Schedule C of the Light Commercial General Permit. This general permit includes the authorization to discharge stormwater, equipment washwater, cooling tower blowdown, and condensate wastewater. The technology used to establish limitations in that general permit can be employed to establish technology limitations in this draft LPDES permit. Therefore, the transfer of limitations established in the LAG480000 is appropriate. The daily maximum permit limitation for oil and grease at 15 mg/L is also established in LAG480000 for the discharge of equipment washwater and stormwater. The measurement frequency of once per month, when discharging, and the sample type of grab is established based on BPJ and similarly permitted facilities.

Monthly average and daily maximum limitations for the quantity of oil and grease discharged are based on 40 CFR 415.492, the Oxygen and Nitrogen Production Subcategory of the Inorganic Chemicals Manufacturing Point Source Category. The proposed LPDES permit limits are based on a production of 1,287 tons (2.574 million pounds) per day of nitrogen and 1,495 tons (2.99 million pounds) per day of oxygen. Total production is 5.564 million pounds per day. The guidelines require multiplication of a factor by pounds per 1000 pounds of product. Therefore, the technology based limitations were calculated in accordance with 40 CFR 415.492 are as follows:

Monthly Average:

5,564 pounds per 1000 pounds x 0.0010 = 5.564 pounds per day of Oil and Grease

Daily Maximum:

5,564 pounds per 1000 pounds x 0.0020 = 11.128 pounds per day of Oil and Grease

The measurement frequency of once per month, when discharging, and the sample type of grab is established based on BPJ and similarly permitted facilities.

Additives

A reporting requirement for both monthly average and daily maximum amount of additives is based on BPJ and similarly permitted facilities. The measurement frequency of once per month and sample type of inventory is also based on BPJ and similarly permitted facilities. A list of the type and quantity of additives used in the cooling towers shall be submitted as an attachment to the Discharge Monitoring Report Quarterly. Material Safety Data Sheets for each additive used shall be submitted once to this Office at the time of initial use of the additive.

Site-Specific Consideration(s)

NONE

B. TMDL WATERBODIES

The discharges from Outfalls 001, 002, and 501 including process wastewater and process area stormwater, cooling tower blowdown, condensate, equipment washwater, non-process area stormwater runoff, and backwash from the compressors are to the Mississippi River via local drainage, Segment No. 070301. The Mississippi River is not listed on the 303(d) report for any impairments. Therefore, no additional requirements were placed in this proposed permit.

Site-Specific Consideration(s)

None

6. COMPLIANCE HISTORY/COMMENTS

A. Compliance History

1. WQMD - N/A, Initial Permit
2. Other Divisions - N/A, Initial Permit

B. DMR Review/Excursions

<u>Date</u>	<u>Parameter</u>	<u>Outfall</u>	<u>Reported Value</u>	<u>Permit Limits</u>
Initial Permit, no DMRs on file for this facility				

7. "IT" QUESTIONS - APPLICANT'S RESPONSES

The facility is not designated as a major facility, therefore, IT Questions were not required to be submitted.

8. ENDANGERED SPECIES

The receiving waterbody, Subsegment 070301 of the Mississippi River Basin, has been identified by the U.S. Fish and Wildlife Service (FWS) as habitat for the Pallid Sturgeon, which are listed as an endangered species. LDEQ has not submitted this draft permit to the FWS for review in accordance with a letter dated 9/29/06 from Watson (FWS) to Brown (LDEQ). As set forth in the Memorandum of Understanding between the LDEQ and the FWS, and based on information provided by the FWS, LDEQ has determined that the issuance of the LPDES permit is not likely to have an adverse effect upon the Pallid Sturgeon. Effluent limitations are established in the permit to ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat. The more stringent of technology and water quality based limits (as applicable) have been applied to ensure maximum protection of the receiving water.

9. HISTORIC SITES

The discharge is from an existing facility location, which does not include an expansion on undisturbed soils. Therefore, there should be no potential effect to sites or properties on or eligible for listing on the National Register of Historic Places, and in accordance with the "Memorandum of Understanding for the Protection of Historic Properties in Louisiana Regarding LPDES Permits" no consultation with the Louisiana State Historic Preservation Officer is required.

10. TENTATIVE DETERMINATION

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to issue a permit for the discharge described in the application.

11. PUBLIC NOTICES

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the statement of basis. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

Public notice published in:

Local newspaper of general circulation

Office of Environmental Services Public Notice Mailing List

12. STORM WATER POLLUTION PREVENTION PLAN (SWP3) REQUIREMENT

In accordance with LAC 33:IX.2707.I.3 and LAC 33:IX.2707.I.4 [40 CFR 122.44(I)(3) and (4)], a Part II condition is proposed for applicability to all storm water discharges from the facility, either through permitted outfalls or through outfalls which are not listed in the permit or as sheet flow. The Part II condition requires a Storm Water Pollution Prevention Plan (SWP3) within six (6) months of the effective date of the final permit, along with other requirements. If the permittee maintains other plans that contain duplicative information, those plans could be incorporated by reference to the SWP3. Examples of these type plans include, but are not limited to: Spill Prevention Control and Countermeasures Plan (SPCC), Best Management Plan (BMP), Response Plans, etc. The conditions will be found in the draft permit. Including Best Management Practice (BMP) controls in the form of a SWP3 is consistent with other LPDES and EPA permits regulating similar discharges of stormwater associated with industrial activity, as defined in LAC 33:IX.2511.B.14 [40 CFR 122.26(b)(14)].